

# Jacob Englert, M.S.

jacobenglert@outlook.com | Emory University | Atlanta, GA  
<https://jacobenglert.rbind.io> | <https://www.linkedin.com/in/jacobenglert/>

## EDUCATION

- 
- Emory University** Atlanta, GA  
*Doctor of Philosophy (Ph.D.), Biostatistics* Expected May 2025
- Thesis: Bayesian Tree-Based Methods for Estimating Heterogeneous Effects of Environmental Exposures
- Master of Science (M.S.), Biostatistics* May 2023
- GPA: 3.9/4.0
  - Relevant Coursework: Machine Learning, Bayesian Statistics, Longitudinal and Multi-level Data Analysis, Generalized Linear Models, Survival Analysis, Advanced Statistical Computing, Statistical Inference, Probability Theory
- Northern Kentucky University** Highland Heights, KY  
*Bachelor of Science (B.S.), Mathematics and Statistics* May 2019
- GPA: 4.0/4.0
  - Relevant Coursework: Time-Series Analysis, Regression Analysis, Design and Analysis of Experiments, Econometrics, Differential Equations, Linear Algebra, Calculus

## PROFESSIONAL EXPERIENCE

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- Medpace** Cincinnati, OH  
*Data Analyst* Oct 2019 – Jul 2020
- Designed interactive Spotfire dashboards used to monitor patient safety and compliance
  - Conducted power simulations in R to study impacts of over-stratification in clinical trial designs
- Biostatistics Intern* Jan 2018 – Jun 2019
- Programmed tables and figures to summarize safety and efficacy endpoints
  - Refined department-wide production programs and created SAS graphics templates
- Burkardt Consulting Center** Highland Heights, KY  
*Statistical Consultant* Aug 2018 – May 2019
- Advised academic and industrial clients on the formulation of research questions, data collection, and statistical methodology
- Federal Bureau of Investigation** Cincinnati, OH  
*Student Workforce Trainee* Jun 2017 – Dec 2017
- Assisted cybercrimes squad with ongoing investigations by identifying statistical anomalies in case data
  - Obtained top secret security clearance

## RESEARCH EXPERIENCE

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- Emory University** Atlanta, GA  
*Research Assistant* May 2021 – Present
- Advised the SPIRIT (Sharing the Patient's Illness Representations to Increase Trust) team on methods to model correlated survey data from a multi-site cluster randomized trial, and conducted these analyses using generalized linear mixed models and generalized estimating equations in R and SAS
  - Evaluated spatial smoothing and cluster detection techniques for opioid overdose records in Georgia using R
- Northern Kentucky University** Highland Heights, KY  
*Research Assistant* Jan 2017 – May 2019
- Applied singular spectrum analysis to discover trends and generate forecasts for temperatures in Togo, Africa
  - Collaborated with Cincinnati Children's Hospital to develop a logistic regression model to predict the development of chronic kidney disease in children with acute kidney injury
  - Investigated the effectiveness of Shinn weights to decipher Japanese naval messages from World War II

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## SKILLS

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- **Programming Languages:** R, SAS, Python, SQL, C++ (Rcpp), Mathematica
- **Software:** Spotfire, SPSS, JMP, Minitab, Tableau, ArcMap, MS Office, Git, HPC systems
- **Certifications:** SAS Certified Base Programmer for SAS 9

## TEACHING EXPERIENCE

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### Emory University

#### Teaching Assistant

- R Bootcamp for Epidemiology Fall 2023
- Applied Linear Models Spring 2022, Spring 2023
  - Guest Lecture: Poisson Regression
- Longitudinal and Multilevel Data Analysis Fall 2022
  - Guest Lecture: Bayesian Hierarchical Models
  - Guest Lecture: Simulation Studies in R
- Geographic Information Systems (GIS) Spring 2021, Fall 2021

### Northern Kentucky University

#### Teaching Assistant

- Introduction to Statistical Methods Spring 2016 – Fall 2018

## AWARDS

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- *First Year Qualifying Exam Top Performer (2021)*, Dept. of Biostatistics and Bioinformatics, Emory University
- *Laney Graduate School Fellowship (2020)*, Laney Graduate School, Emory University
- *Outstanding Senior in Statistics (2019)*, Dept. of Mathematics and Statistics, Northern Kentucky University
- *Outstanding Senior in Mathematics (2019)*, Dept. of Mathematics and Statistics, Northern Kentucky University
- *Honorable Mention*, 2019 COMAP Mathematical Modeling Competition
- *Outstanding Poster Presentation*, 2019 Joint Mathematics Meetings, Mathematical Association of America
- *Honorable Mention*, 2018 Public Health Data Challenge, American Statistical Association
- *Outstanding Student Writing Award (2016)*, Dept. of English, Northern Kentucky University

## ACTIVITIES

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- Academic Tutoring, Emory University and Northern Kentucky University
- Scorekeeper, John O'Bryan Mathematics Competition, Northern Kentucky University
- Senator & Justice, Student Government Association, Northern Kentucky University

## MEMBERSHIP

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- American Statistical Association (Emory Chapter), Emory University